Sl. No.	Name of Wetland	State	Place	Coast/ inland	Category
14.	Kolleru Lake	Andhra Pradesh	Krishna & Godawari	Coastal West	—
15.	Loktak Lake	Manipur	Bishanpur	Inland	Fresh water
16.	Point Calimere Sanctuary	Tamil Nadu	Nagapattinam Tanjavur	& Coastal	Fresh water
17.	Pong Dam Lake	Himachal Pradesh	Una	Inland	Riverine
18.	Chand ratal	-Do-	Lahul Spiti	High altitude	Fresh water
19.	Renuka	-Do-	Sirmour	Inland	Fresh water
20.	Tsomoriri	Jammu & Kashmir	Leh	High altitude	Fresh water
21.	Wular Lake	-Do-	Baramula	Inland	Fresh water
22	Hokarsar	-Do-	Srinagar	Inland	Fresh water
23.	Surinsar-Mansar	-Do-	Jammu	Inland	Fresh water
24.	Rudrasagar	Tripura	Tripura	Inland	Fresh water
25.	Uppar Ganga	U.P.	Haridwar &U.P.	Riverine	Fresh water

Melting of ice of Poles

2459. SHRI ABU ASIM AZMI: Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether Government are aware that icelands of North and South Poles of earth are growing warmer these days;

(b) if so, the extent to which the ice of these poles is expected to be melted during the coming five years;

(c) the extent to which the levels of the oceans shall rise and most particularly the Indian Ocean, Bay of Bengal and the Arabian Sea;

(d) the extent to which the coastal areas are expected to be adversely affected; and

(e) what are Government's consideration in this regard for the protection of Indian soil?

THE MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT AND FORESTS (SHRI NAMO NARAIN MEENA): (a) and (b) The rising average global surface temperature also affects the North and South Poles of the earth. However, the studies based on various satellite data in Polar Regions have revealed that the two polar regions respond differently to increasing temperatures. While in Antarctica land ice is showing some melting signs in Western Antarctica Ice Sheet (WAIS) and Antarctic peninsular regions as compared to Eastern Antarctica. As far as sea ice is concerned, Weddell Sea is showing decreasing trend but Ross Sea is indicating increasing trend in sea ice extent. In Northern hemisphere, Arctic ice is melting at a faster rate leading to thinning of the Greenland Ice sheet and decrease in sea ice.

(c) to (e) According to the third assessment report of the Inter Governmental Panel on Climate Change (IPCC), it is very likely that the 20th Century warming has contributed significantly to the observed sea level rise, through thermal expansion of sea water and widespread loss of land ice. It has been observed that the global mean sea level had increased at an average annual rate of 1 to 2 mm during the 20th century. According to the Indo-UK study on climate change, mean sea level rise estimates (using past tide gauge data) were found to be slightly less than 1 mm per year in most of the stations analyzed along the Indian coast.

Regional manifestations of the projections are not yet available with certainty and likewise the short term projections of five years. However, the preliminary studies carried out in the nature of vulnerablility assessment under the aegis of India's Initial National Communication project, it has been observed that the sea level rise (0.4-2.0mm/year) along the Gulf of Kutch and the Coast of West Bengal is the highest. On the other hand, along the Karnataka Coast, there is a relative decrease in the sea level.

Future climate change in coastal zones is likely to adversely affect this region through erosion, flooding, submergence and deteriorating coastal ecosystems such as mangroves and salination. More comprehensive vulnerability assessments are expected to provide the basis for devising the adaptive strategies, beyond the current capacity for detailed modeling and vulnerability assessments.